Case Report

Rare Emergency Hernias

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Abstract
Rare forms of hernias can cause diagnostic difficulties that require special modifications of operating methods. Due to their rarity, they may lead to a serious threat to the health and life of patients. We present three patients with unique sudden hernias that may be problematic in clinical practice. We have chosen cases that were urgently operated in our department. The described cases of obturator hernia, Spiegel's hernia and strangulated inguinal hernia containing a bladder in the hernial sac require more attention not only because of their rarity, but above all because of unusual symptoms leading to delayed diagnosis. This may result in a delayed start of treatment and, consequently, an increase in mortality. The surgeon often finds out about the difference of hernia only during the operation, therefore everyone should know the techniques of managing such cases. Medical emergencies included in this paper demonstrate that unique pathologies must remain in the mind of the surgeons and offer a comprehensive review.

Keywords: Emergency hernia; Obturator hernia; Spigelian hernia; Inguinal hernia

1. Case Presentation
The treatment of inguinal hernia was one of the five most common surgeries performed in Europe in 2018 [1]. However its rare forms may produce diagnostic difficulties that require special modifications in operating methods. Due to their rarity and some management modalities may lead to serious threat to health and life of patients. We present three patients with rare emergency hernias that may be problematic in clinical practice.
Obturator hernia is a rare pelvic hernia and is most common in elderly, thin, multiparous women. Due to the non-specific nature of the symptoms, diagnosis is often delayed until laparotomy is performed to treat bowel obstruction. [2]. First presented patient was a 90-year-old woman presenting vomiting and constipation for 4 days. After physical examination, X-ray and computed tomography (CT) scans performed, an ileus was found due to incarcerated obturator hernia. Patient was qualified for urgent surgery. During the procedure, a 6cm segment of the small intestine was strangulated in the obturator opening. The intestinal wall was macerated but without necrosis. After the peristalsis was observed and the intestine presented its natural view, resection was abandoned. This type of hernia should be regarded as a possible cause of abdominal pain in elderly patients. Immediate qualification for urgent laparotomy allows to establish a final and correct diagnosis, prevent necrosis and the need for resection or ileostomy.

The second patient, the 77-year-old woman was diagnosed with Spigelian hernia which is a rare defect of the abdominal wall, arising from the arcuate line. It also may be a diagnostic trap due to non-specific symptoms and unusual location [3]. The patient was admitted to the hospital because of abdominal pain lasting for 3 days. In physical examination there was an abnormal mass in the right lower abdomen. The X-ray of the abdomen exposed single fluid levels in the intestinal loops and abdominal CT scan revealed strangulated hernia of the intestinal loop and distended bowel loops with fluid levels above it. Laparotomy with hernioplasty and appendectomy was performed. The hernial ring in the right semilunar line was widened and the part of ceacum from the hernial sac was put into the peritoneal cavity. The hernia’s gate was sutured and the suprafascial drain was placed.

The emergency operation was also performed in the third patient, a 66-year-old man due to the symptoms of strangulated right inguinal hernia. In laboratory tests, the patient's C reactive protein (CRP) amounted to 325.44 mg/l. Dissection of the visceral sac revealed an ischemic small bowel loop. It was further resected and an end-to-end anastomosis was made. The contents of the hernial sac was also part of the urinary bladder which was restored to its original position. Because of the ischemic changes observed on the surface of the bladder it was incised in order to assess the mucosa. The organ was further stitched and the Foley catheter was placed. These last stages of the operation differ much from the typical course [4]. The other factor that distinguishes this unique form of hernia is the fact that it may lead to ureter’s damage [5]. It is significant to emphasise the fact that the patient didn’t present any symptoms that would have suggested the presence of the urinary bladder in the hernial sac- it is an extremely rare condition, however a surgeon has to be aware of such possibility. Furthermore, due to the positive result of the COVID-19 test, the patient was transferred to the infectious diseases ward for further treatment. Despite the pandemic, we must remember that regardless of the patient’s infection, the most important thing is to save his life.

Thus, hernias can be life threatening. Despite the fact that some are extremely rare, clinicians should be familiar with their unspecific symptoms to minimize the risk of treatment delay and increase the patient’s chance to quick recovery. It should be remembered that hernias are a vast issue with many possible forms and complications. Often the surgeon finds out about
the difference of hernia only during the operation, therefore everyone should know the techniques of managing such cases.

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Availability of data and materials
The datasets used and analyzed during the current study are available from the corresponding author upon reasonable request.

Conflict of interest
None declared.

Informed consent
We obtained informed consent from the participants. Ethical approval and ethical number provided by the review board: Our study protocol was approved by the Bioethics Committee of Wroclaw Medical University, Poland (Signature number: KB-365/2021).

Human rights statement
All procedures were conducted in accordance with the ethical standards of the institutional and/or national research committee and with the 1964 Declaration of Helsinki and its later amendments or comparable ethical standards.

References